



Seed health analysis

Detection and quantification of pathogens on seeds in only 5 seconds e.g.

- Fusarium spp.
- Microdochium spp.
- Tilletia spp.
- Alternaria spp.

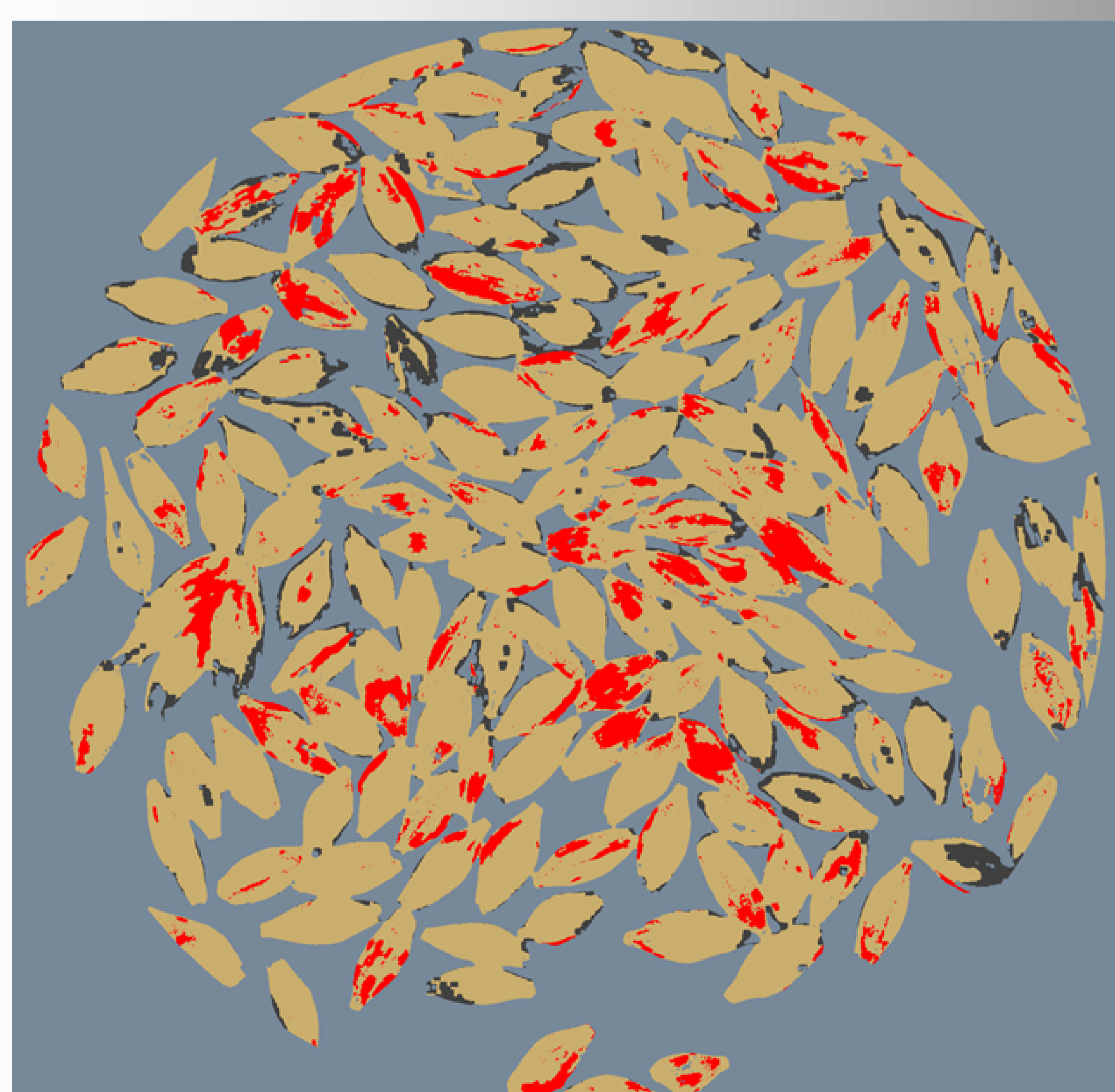
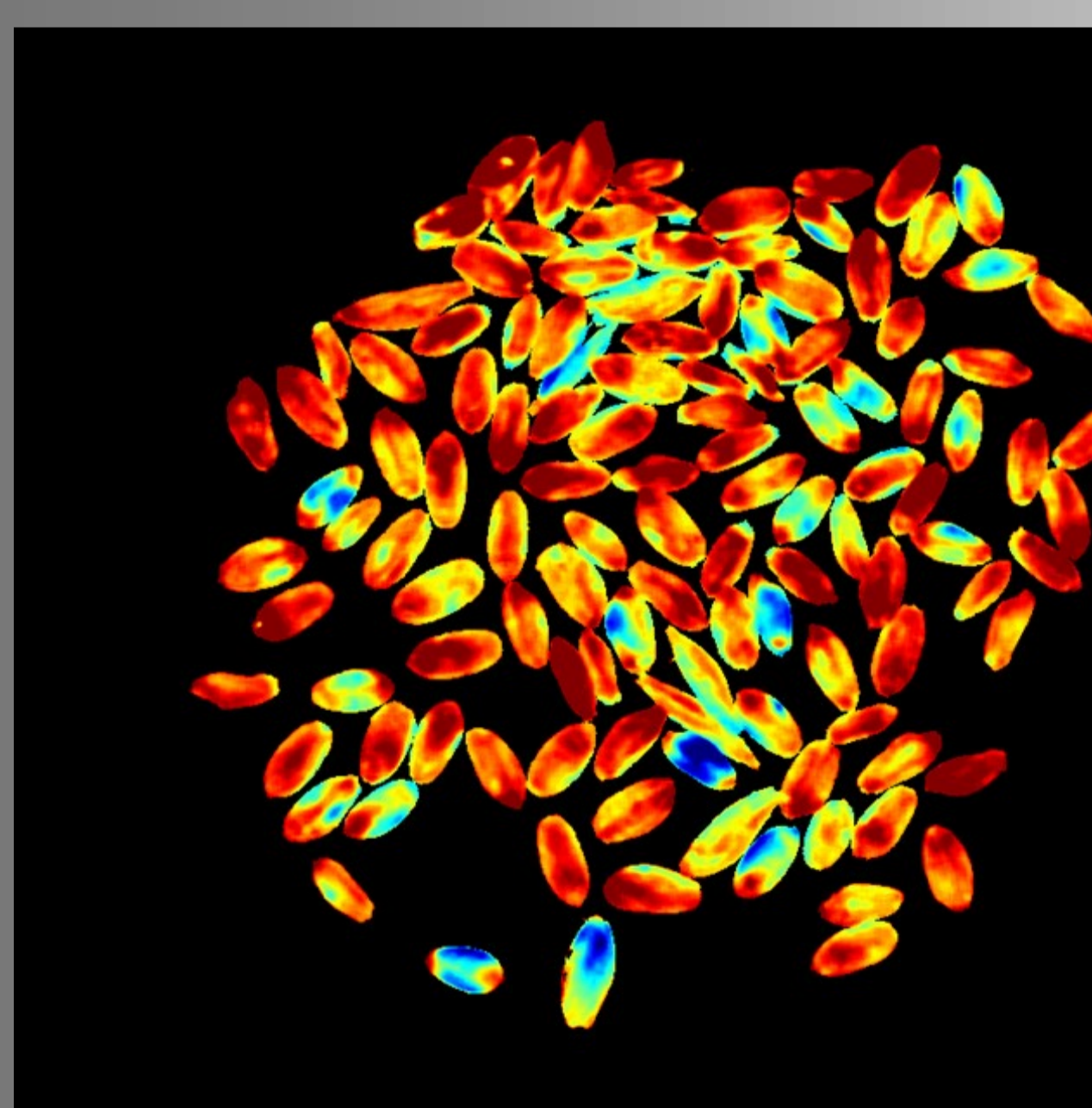
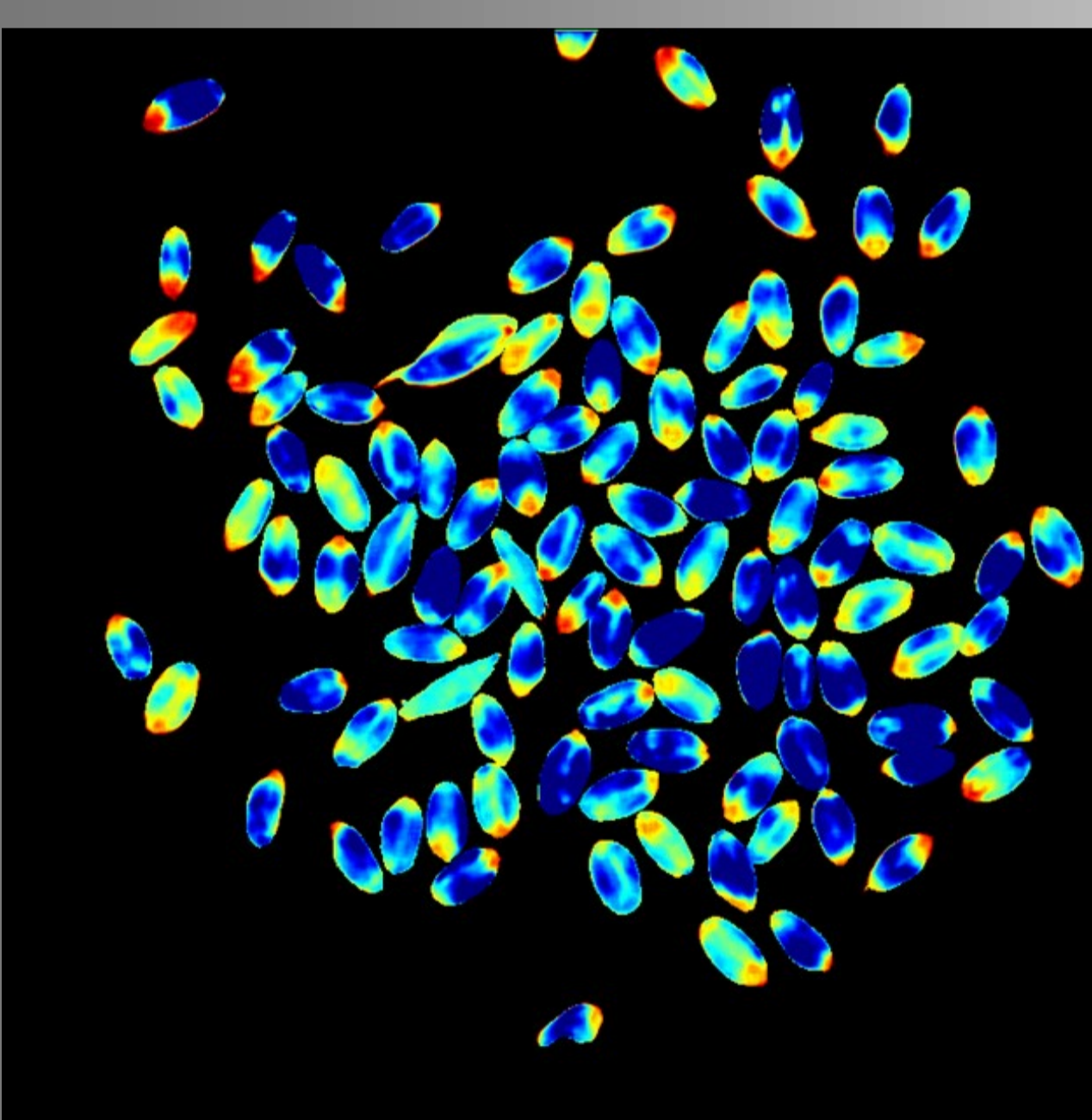
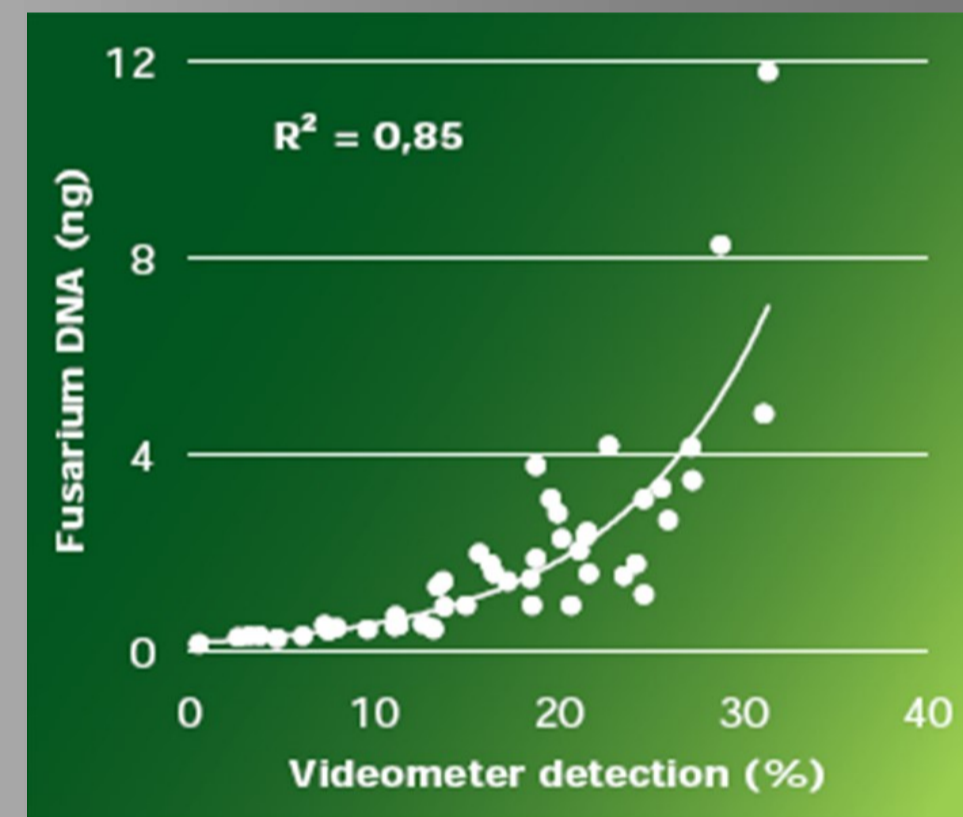
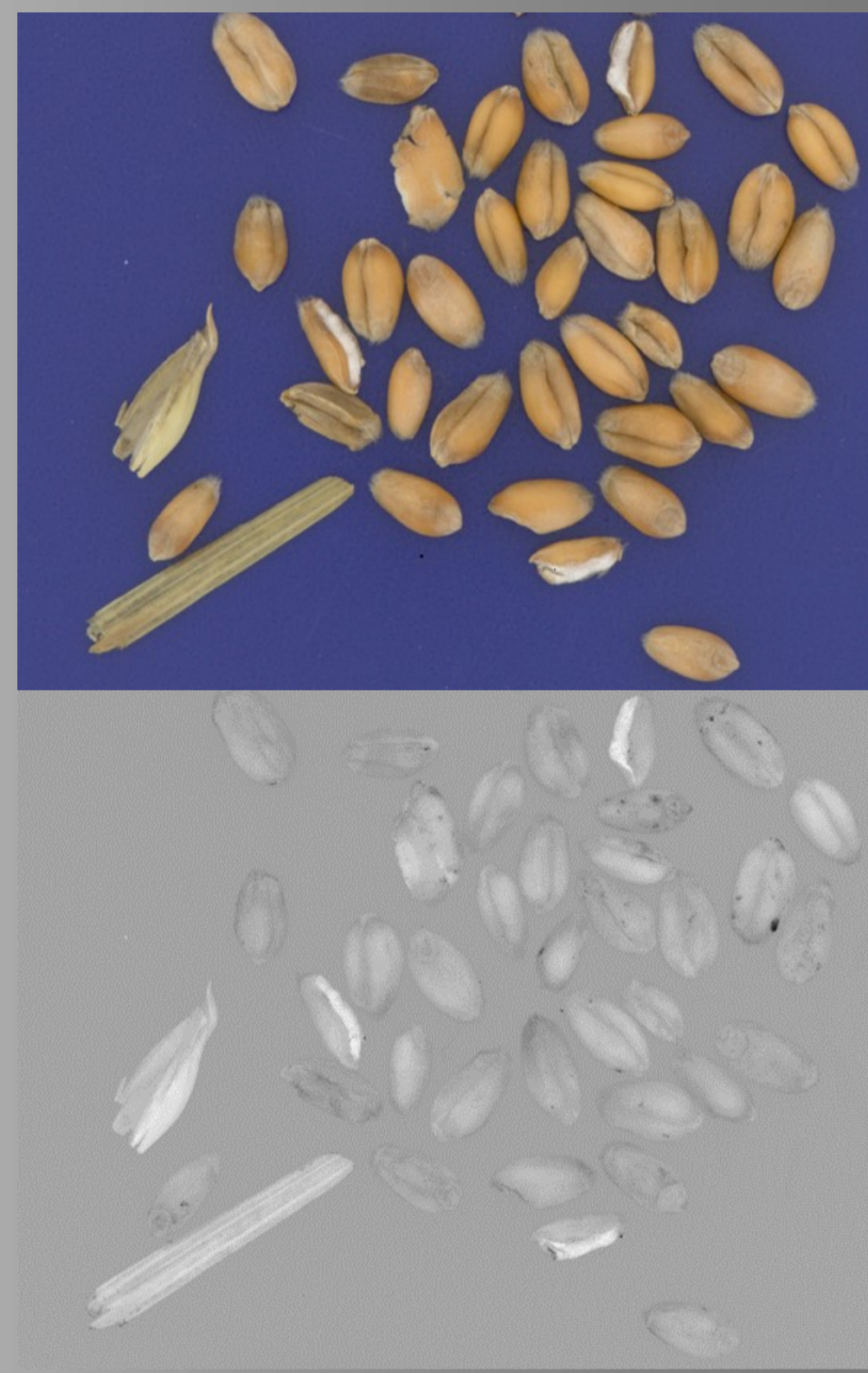
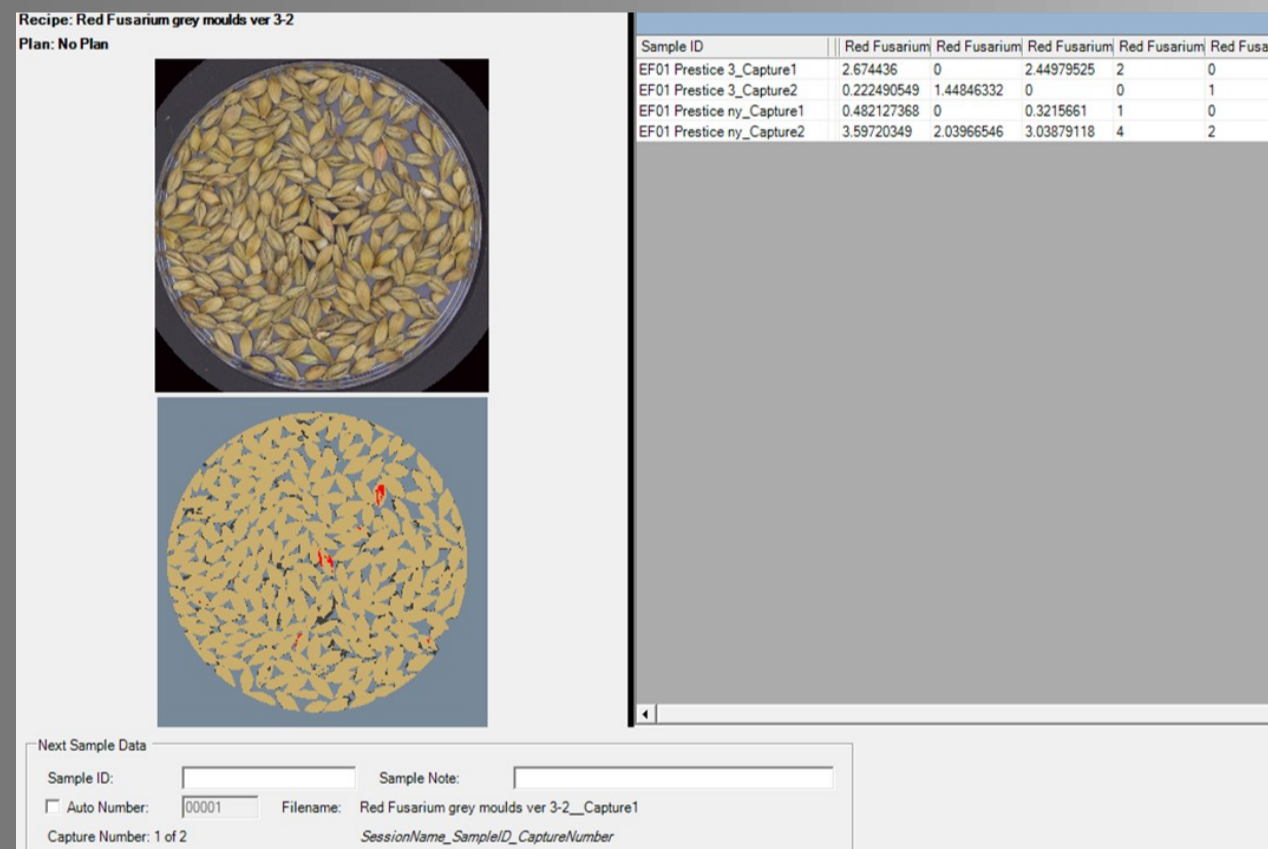
Constantly increasing database of pathosystems

Sample

- No or little sample preparation
- Present any seed sample in 90 mm petri dish or similar plate up to 110 mm
- Autofeeder available for larger sample sizes
- May be combined with destructive techniques like qPCR and NGS where needed

Technique

- Spectral imaging
- Wavelengths from 365 nm to 970 nm covering UV, visual, and NIR region
- Combined reflectance spectral imaging and fluorescence spectral imaging
- Integrating sphere illumination providing diffuse and homogenous light
- High reproducibility
- Interfaces to phenotype database

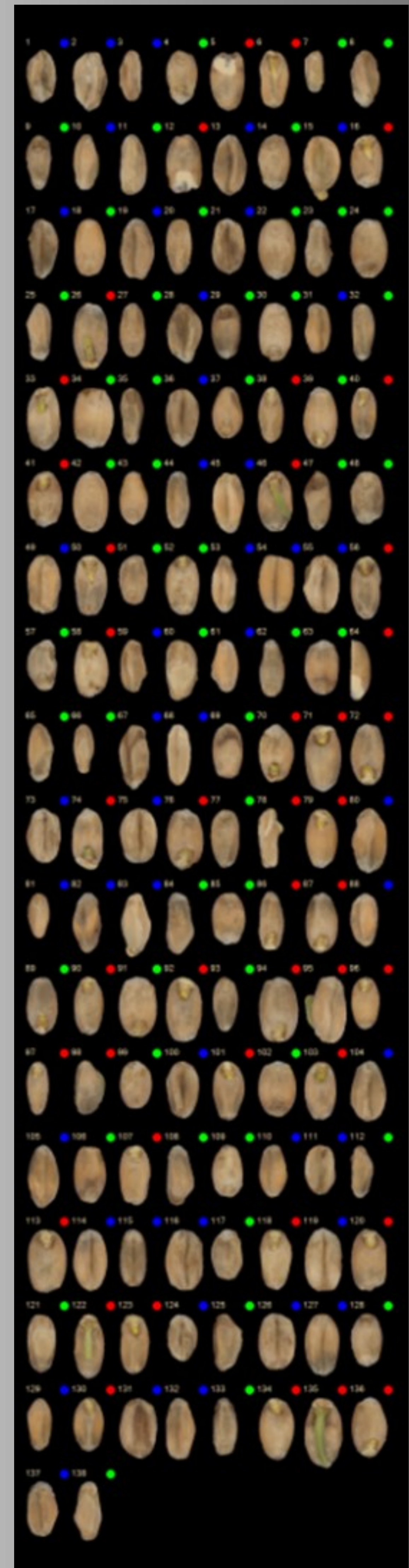
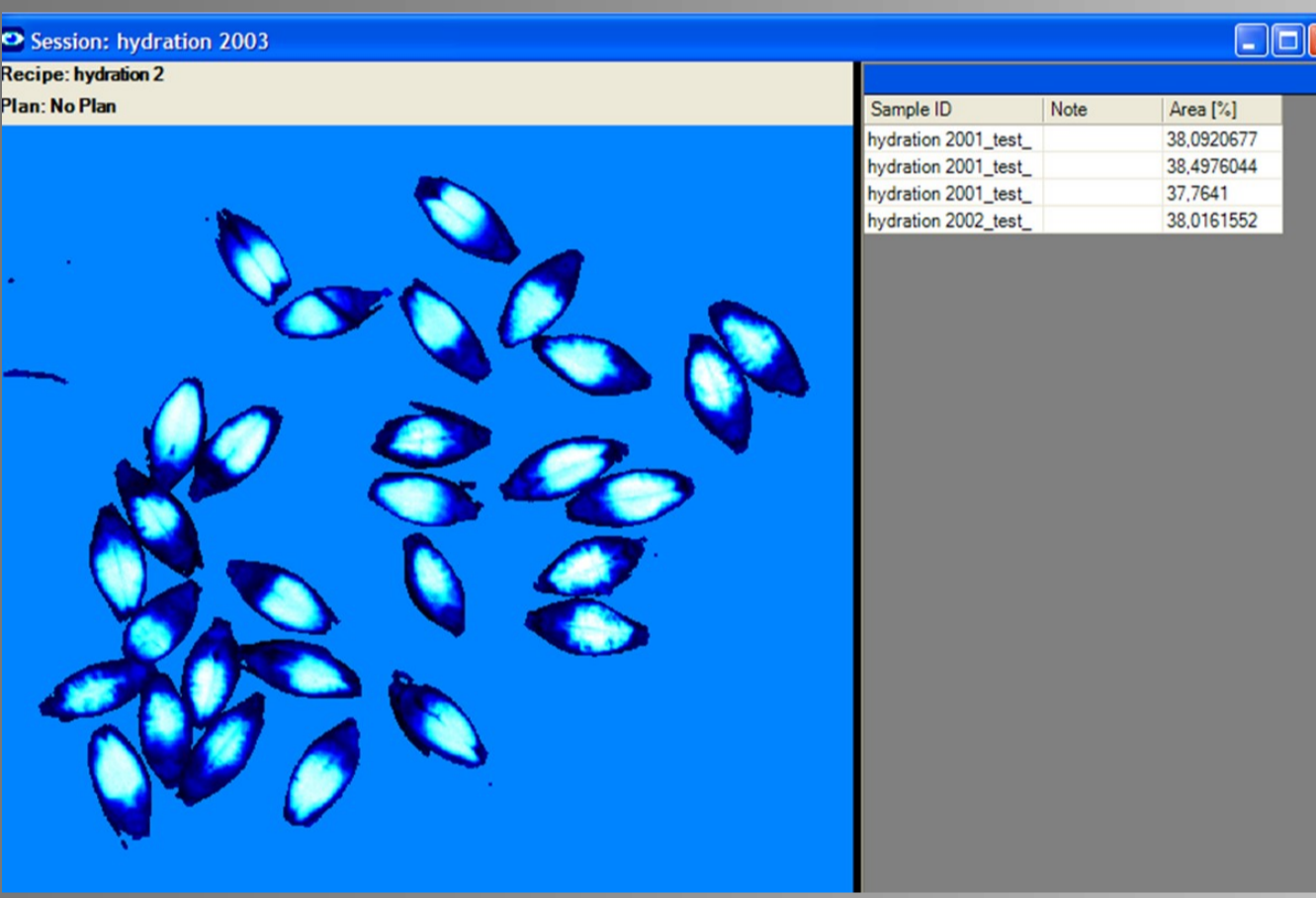
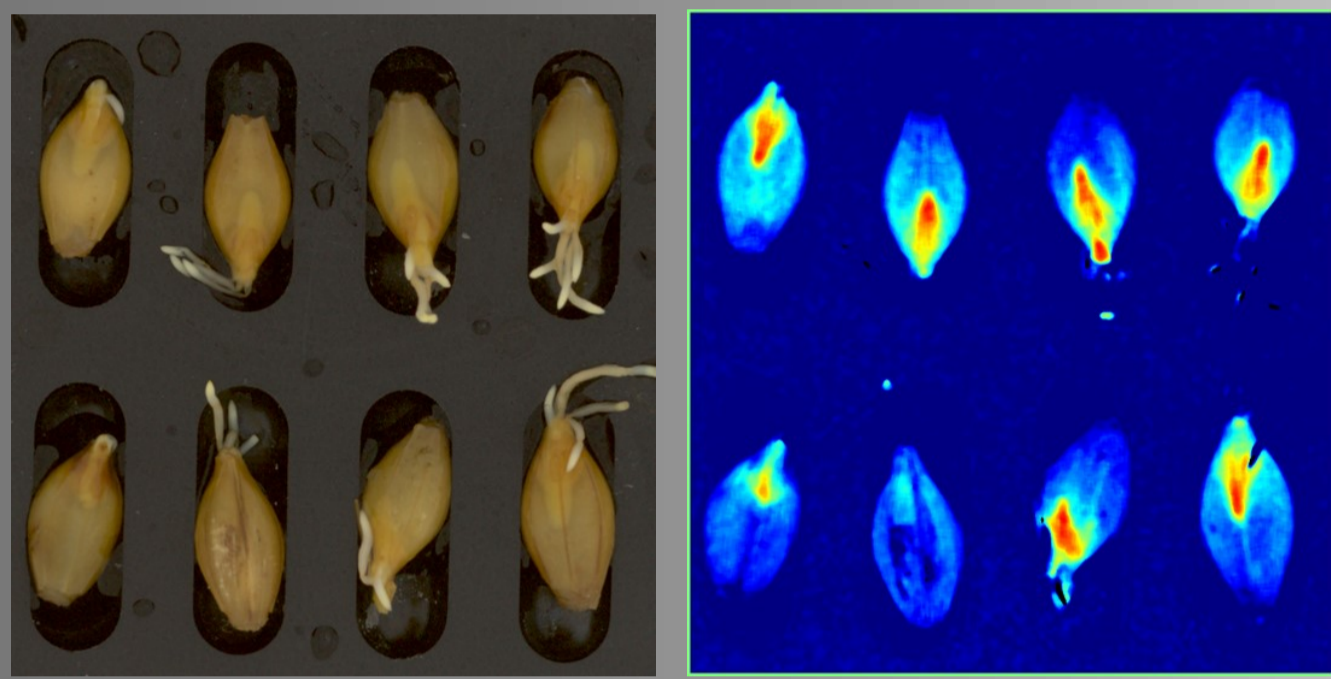




Seed germination and vigour analysis

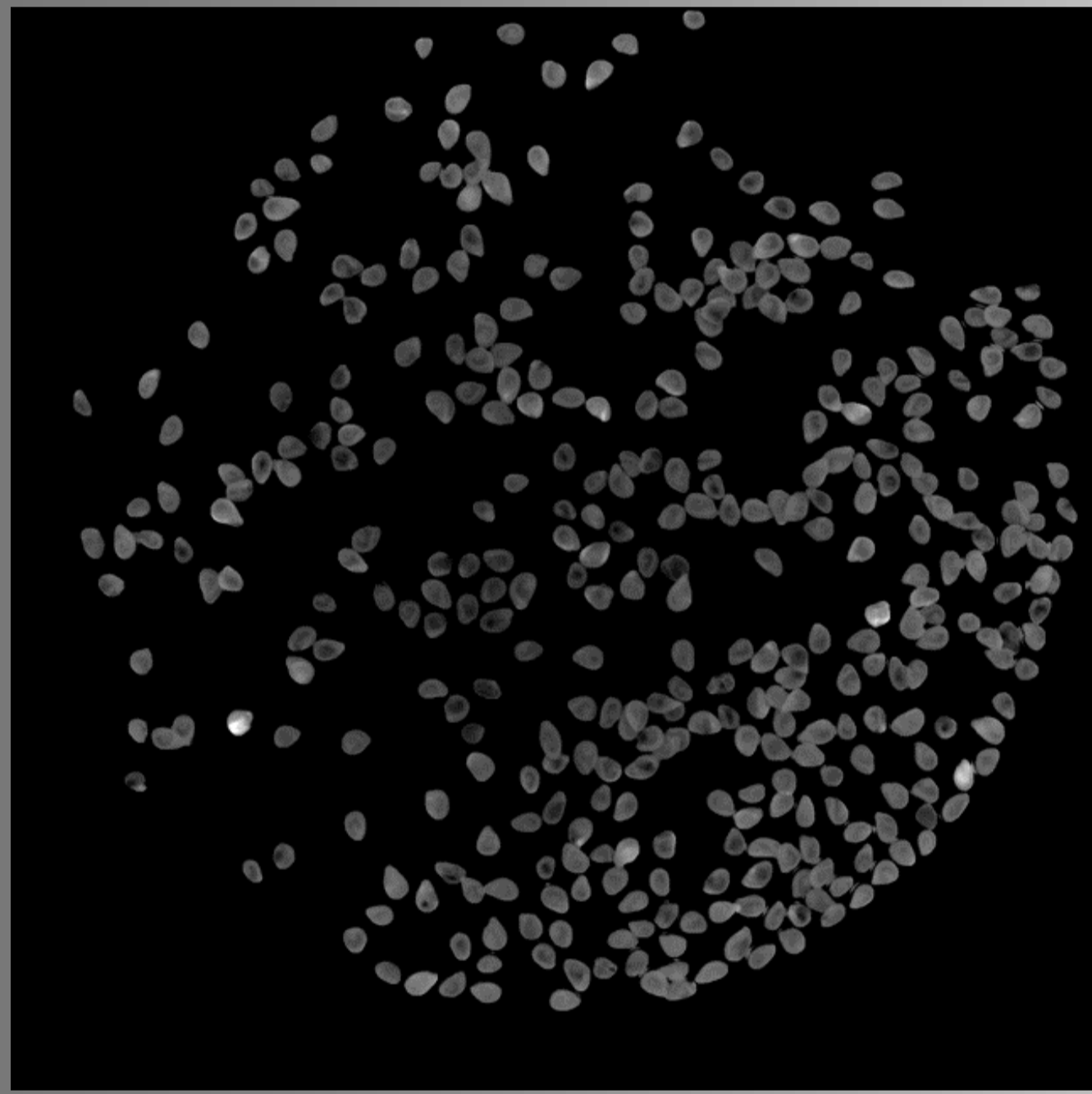
Versatile germination and vigour analysis in only 5 seconds e.g.

- Acrospire length
- Preharvest sprouting
- Early emergence
- Germination assessment on dry seeds
- Hydration
- Maturity and chlorophyll content
- Effect of priming



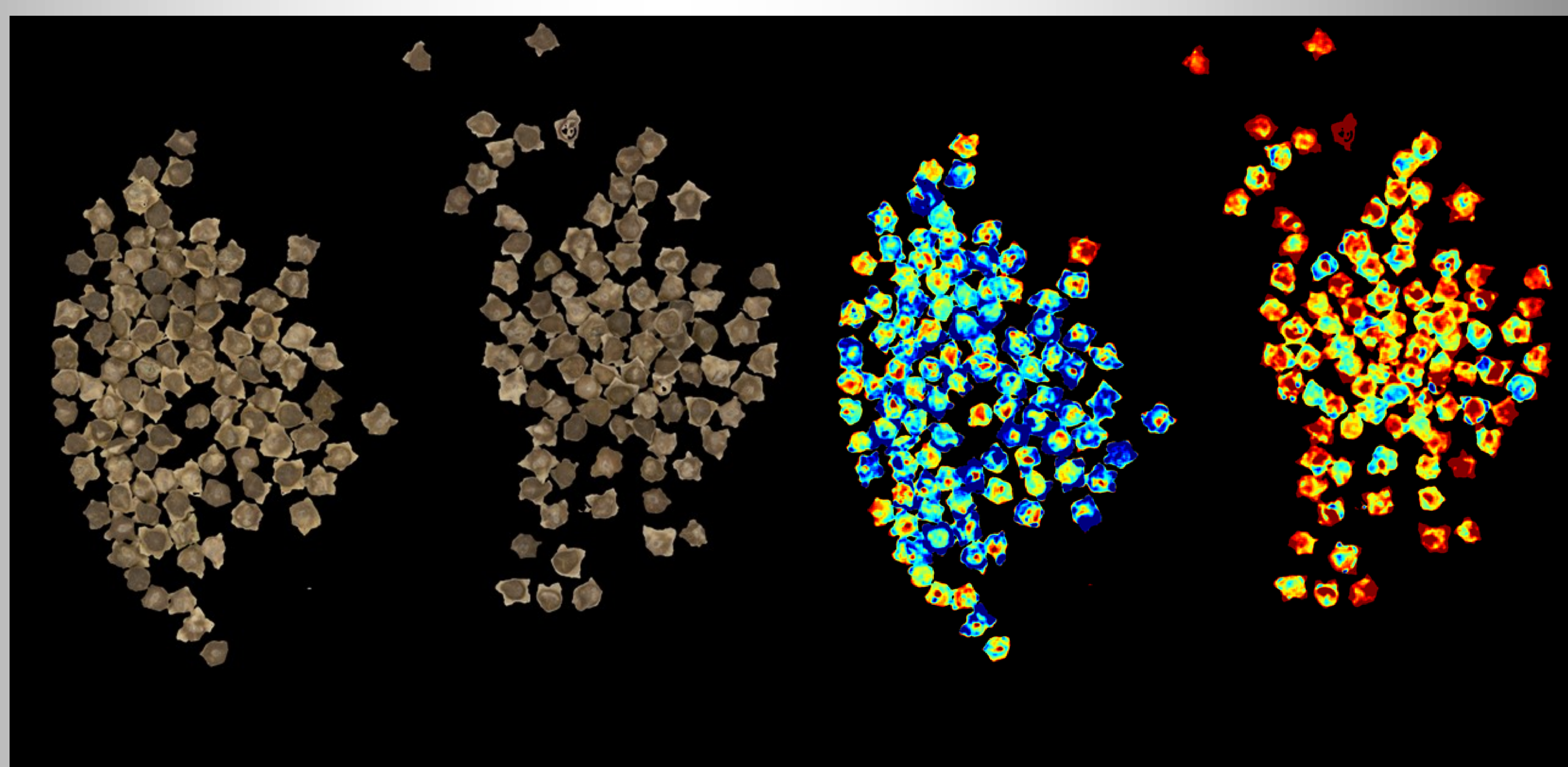
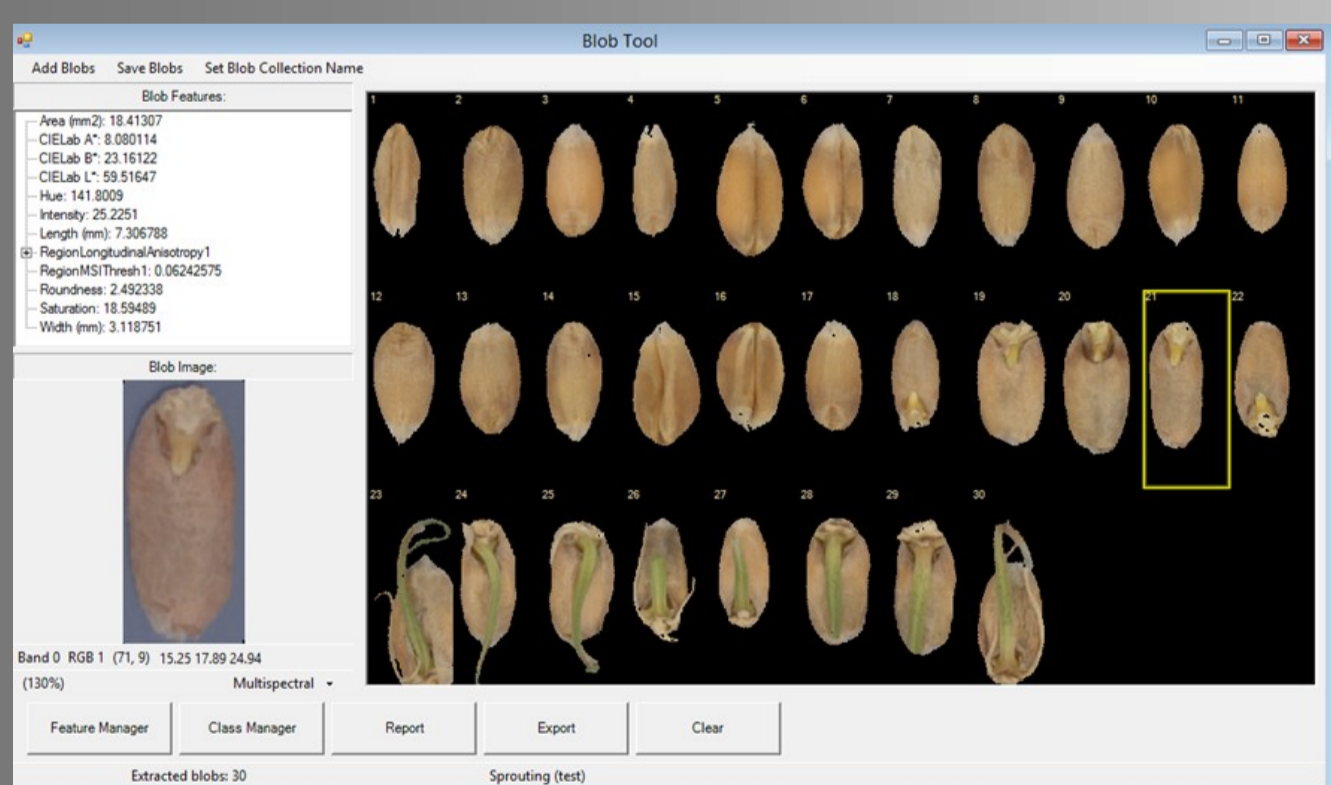
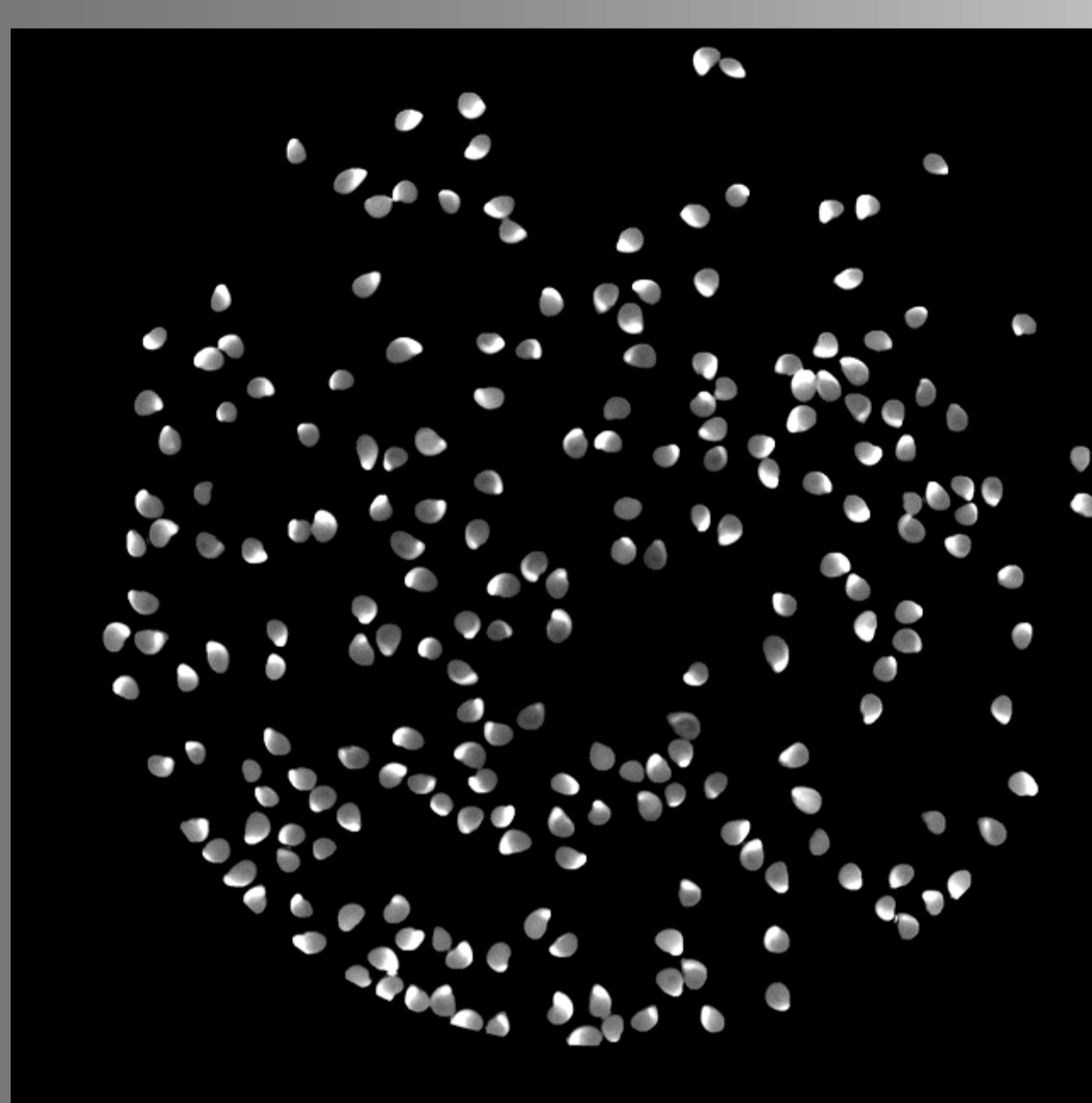
Sample

- No or little sample preparation
- Present any seed sample in 90 mm petri dish, germination paper or similar plates up to 110 mm



Technique

- Spectral imaging
- Wavelengths from 365 nm to 970 nm covering UV, visual, and NIR region
- Combined reflectance spectral imaging and fluorescence spectral imaging
- Integrating sphere illumination providing diffuse and homogenous light
- High reproducibility
- Interfaces to phenotype database





Seed purity analysis

Detection and quantification of weeds and foreign material in only 5 seconds e.g.

- Purity analysis
- Adulteration detection
- Identification of foreign seeds
- Detection of infection and insect damage
- Detection of mechanical damage
- Quantification of size and shape distribution
- Genetic purity and phenotyping

Constantly increasing database of phenotypes

Sample

- No or little sample preparation
- Present any seed sample in 90 mm petri dish or similar plate up to 110 mm
- Autofeeder available for larger sample sizes
- May be combined with handling and sorting up for high value seeds

Technique

- Spectral imaging
- Wavelengths from 365 nm to 970 nm covering UV, visual, and NIR region
- Combined reflectance spectral imaging and fluorescence spectral imaging
- Integrating sphere illumination providing diffuse and homogenous light

